2015 Drinking Water Consumer Confidence Report

Featuring Calendar Year 2014 Water Quality Results

Dear Valued Ventura Water Customer,

The City of Ventura, along with the rest of California, is entering its fourth consecutive year of drought. The water shortage causes challenges not just with supply and demand, but also with water quality. Even with these challenges, Ventura Water remains committed to delivering high quality drinking water to our customers.

This report contains 2014 water quality testing results, background on our local water resources, and information on our investment into local water infrastructure. On behalf of our entire staff, thank you for partnering with us to conserve and preserve our precious water resources during these critical times.
Sincerely,

Shana Epstein, General Manager

Our Continuing Commitment to You

Ventura Water's trained, State-licensed water professionals are committed to:

- High-quality drinking water meeting or exceeding all regulatory standards.
- A proactively maintained and reliable water system.
- A customer-focused organization that anticipates future community needs.

We know our customers value their tap water. We appreciate your support and investment which is critical to achieving our service, operations and capital improvement goals.

For More Information

If you would like more information regarding Ventura's water quality, facility improvements, or studies, please contact Omar Castro, Water Utility Manager at (805) 652-4581. This Drinking Water Consumer Confidence Report is available in Spanish and on the City's website at www.cityofventura.net/water/ccr.

You are also invited to express your opinions at City Council meetings held most Monday evenings in the Council Chambers at Ventura City Hall, 501 Poli Street. Please visit the City Council link at www.cityofventura.net for a complete schedule.

Este informe contiene información muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien. Para más información o para obtener copias del informe de agua en espanol llame (805) 667-6500.

Water Quality Report Highlights

This year's Drinking Water Consumer Confidence Report shows:

- Ventura's drinking water quality met all State and Federal regulatory standards.
- Our staff conducts many routine tests beyond those presented in this report to monitor and optimize water quality.
- We actively monitor the quality of our water supplies and collaborate with others to maintain and improve them.
- Ventura Water's drinking water treatment systems employ multiple barriers to protect our water from disease-causing microorganisms and other constituents.
- Vulnerable populations should pursue additional information about their drinking water because no municipal or bottled drinking water is 100% "pure".

Drought: Stage 3 Water Shortage

Ventura Water requests your cooperation during the drought. Currently, the City is in a Stage 3 Water Shortage Event, requiring a 20% cutback in water use. Make an appointment for a free conservation survey to help you save water both indoors and outdoors by visiting www.cityofventura.net/water/waterconservationsurvey.

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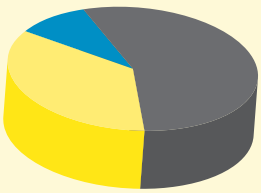
Ventura's Water Sources & Treatment

	Ventura River	Casitas	Groundwater Wells
Supply Type	Surface Water & Groundwater	Surface Water	Groundwater
Fraction of Total Supply	0-30%	25-35%	35-65%
Location	At Foster Park	Lake Casitas	Victoria & Saticoy
General Service Area	West & Midtown	West	Midtown & East

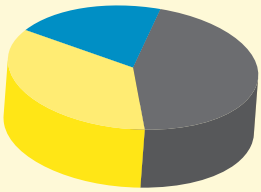
Ventura is one of the largest cities in California that relies exclusively on local water supplies. We manage our water portfolio of three distinct sources based on the flow of our Ventura River supply. When more river water is available, less groundwater is used. During dryer conditions, groundwater or Lake Casitas supplies a greater percentage of your drinking water (based on your service area).

Dry Year



Ventura River	0%
Groundwater Wells	70%
Lake Casitas	30%

Normal Year



Ventura River	22%
Groundwater Wells	51%
Lake Casitas	27%

Source: 2015 Comprehensive Water Resources Report

Ventura River

Ventura's oldest water supply is provided from the Ventura River at Foster Park, pumped from four shallow wells and a subsurface collector. This water drains from a 51,000-acre lower watershed in the Ojai and Ventura River Valleys that includes the tributaries of the San Antonio and the Coyote Creeks. In 2007, the Avenue Water Treatment Facility was modernized to treat this water source with membrane ultrafiltration (UF). An effective and reliable process, thousands of UF hollow fiber filtration membranes create a physical barrier to remove pathogens and particles larger than the 0.02 micron pore size, including bacteria, viruses, Giardia, and Cryptosporidium. Chloramines are added for disinfection prior to delivery into the water distribution system as well as a corrosion inhibitor to help protect the plumbing in your home and the distribution pipes.

Casitas

Treated water is purchased from the Casitas Municipal Water District (Casitas), the operator of Lake Casitas. Lake Casitas' water drains from the upper watershed and is federally protected to limit contamination of the lake. Casitas treats the water from Lake Casitas with direct media filtration and with chloramines for disinfection prior to delivery into the City's distribution system. Ventura Water works closely with Casitas through a purchase agreement of approximately 5,000 acre-feet (about 1.6 billion gallons) per year to supply in-district demand.

Groundwater Wells

Water is also pumped from deep groundwater wells located in the east side near Victoria Avenue and in Saticoy. Water quality from the aquifers in the Oxnard Plain, Mound, and Santa Paula groundwater basins are similar. Compared to water from the Ventura River or Lake Casitas, this groundwater contains about two times the amount of total dissolved solids (TDS) or minerals (hardness). The groundwater sources are treated at either the Bailey or Saticoy Plants with prechlorination and direct media filtration to remove iron, manganese, and turbidity particles, and disinfected with chloramines. A corrosion inhibitor is also added to protect the plumbing in your home and the distribution pipes.

Important Water Treatment Information

Ventura Water and Casitas use chloramines -- chemicals that contain chlorine and ammonia -- for continuous disinfection of the drinking water. Chloramines are preferred because of their ability to provide disinfection over a longer period of time, and improve taste and odor as compared to using chlorine alone. Chloramines have been proven to effectively kill microorganisms while producing lower levels of disinfection byproducts such as trihalomethanes (TTHMs) and haloacetic acids (HAAs), which are potentially harmful constituents. Starting in 2012, large water agencies were required to meet more stringent standards for these byproducts by maintaining and reporting levels at all site specific locations instead of averaging test results system wide. In 2014, the City was in compliance with TTHM limits, however, for two reporting quarters in 2015, January through March and April through June, the Maximum Contaminant Level (MCL) for total Trihalomethanes (TTHMs) was found at a level higher than the State allows, affecting Ventura residents in Pierpont, the Keys, and some downtown-area neighborhoods. Follow-up test results reflect TTHM levels well below the State's maximum allowable level. Drinking water containing these byproducts in excess of the regulated maximum contaminant level (MCL) may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. For more information concerning TTHMs, please contact Omar Castro, Water Utility Manager at (805) 652-4581.

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agriculture and livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals that may be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides from a variety of sources, such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems.
- Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW) prescribe regulations that limit the amount of contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health. More information about contaminant and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Water Supply Status

For more than a century, the City of Ventura has invested in its water sources and systems to maintain a stable water supply, recognizing the importance of clean water to the health of a thriving community. The current drought highlights the importance of working together to achieve our long-term goals. As detailed in the 2014 Comprehensive Water Resources Report (www.cityofventura.net/water/supply), our collective ability to find solutions to meet the following supply and quality challenges will be essential to our water future.

Climate Change and Drought

Continued years of drought and potential impacts of climate change will require more flexibility and resiliency planning.

Environmental

Due to concerns for the health of the Ventura River ecosystem, pumping restrictions are limiting how much water and what time of year this water supply is available. Also, as a major supplier of our water, environmental challenges facing Casitas could result in both supply restrictions and higher costs to Ventura Water.

Groundwater

Water allocations from groundwater basins which are shared regionally are increasingly regulated and monitored. Our quantity is limited from groundwater sources, especially during the current drought conditions.

Water from groundwater wells contain higher levels of dissolved solids, minerals and sulfur than Ventura's other water sources. While treated groundwater meets all health requirements, its mineralized content results in deposits on plumbing fixtures and less aesthetically pleasing water quality. A program to blend water sources to reduce these levels has been in operation while more permanent options are being studied.

Water Quality Monitoring

Water treatment plants are continuously monitored for specific water constituents by special automated instrumentation to ensure that the process is always producing water of high quality. Turbidity is a measure of the relative clarity of water and both Ventura Water and Casitas Municipal Water District measure turbidity every 15 minutes as a good indicator of the effectiveness of filtration processes, especially for surface waters.

Ventura owns and operates a full-scale, State-certified laboratory and also uses outside State-certified labs to monitor water quality. Ventura Water submits monthly, quarterly and annual reports to the State for review to summarize treatment and distribution operations and drinking water quality. Water quality constituents that were detected by the laboratories during 2014 are listed on the Water Quality Summary Table. As reflected, our drinking water met all State and Federal water quality requirements.

The State regularly inspects the City's water system and reported in April 2013 that the City's water sources, facilities, and operations are capable of producing safe and reliable water quality.

In 2014, Ventura Water met the triennial lead and copper corrosion monitoring requirements by sampling 50 locations to test consumers' tap water. The test results, provided in the Water Quality Summary Table, indicated that no additional corrosion control treatment is required. The next testing will be conducted in summer 2017.

Early detection of threats from potential contaminants is important to sustaining a healthy water supply. The five-year update to the Sanitary Survey of the Lower Ventura River Watershed was completed in 2010 (www.cityofventura.net/water/drinking). The purpose of the survey is to identify potential sources of water contamination to reduce risks to the water supply. While no new issues were identified, the study recommends continued collaboration with stakeholders to protect the watershed. In addition, the City has voluntarily tested for specific contaminants along the Ventura River and San Antonio Creek since 2002 to aid in early identification of emerging water quality concerns.

Ventura Water conducted a Source Water Assessment (DSWAP) in 2013 for each of the drinking water sources serving the Ventura Water system. Sources in this system are considered most vulnerable to the following activities: gas stations, automobile repair shops, sewer collection systems, and metal manufacturing. Contaminants associated with these activities have not been detected in the water supply.

A copy of the assessment may be viewed at:
SWRCB, DDW Santa Barbara District Office
1180 Eugenia Place, Suite 200, Carpinteria, CA 93013

You may request a summary of the assessment by contacting:
SWRCB, DDW Santa Barbara District Office at (805) 566-1326

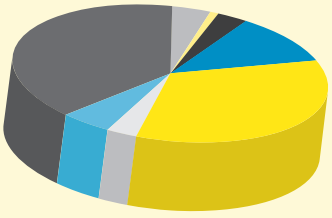
Continuous Investment in our Infrastructure

Since the early days of the Mission, Ventura's water system infrastructure has continually evolved, with major pipeline expansion in the 1950s and 60s with the purchase of the Saticoy and Mound Water Companies. Today, with three different water supplies, the inter-related infrastructure system is categorized by the State Water Resources Control Board as a "grade 5," indicating the highest degree of treatment and distribution complexity.

Booster Pump Stations	23
Storage Reservoirs	31
Valves	16,000
Meters	32,000
Fire Hydrants	3,700
Groundwater Wells	11
Lake Casitas Connections	2
Water Treatment Facilities	3
Pressure Zones	14

Ventura Water is committed to investing in the maintenance and improvement of its vital infrastructure. Our cost of service allows us to fund the capital improvement work program, which will focus on maintaining aging pipelines and facilities as well as projects to improve water quality. Below is a graph of future water and wastewater projects to be completed by 2020.

Water and wastewater projects to be completed by 2020



Wells	$47,614,164	39%
Energy Efficiency	$5,000,000	4%
Restoration	$540,000	<1%
Pump Stations	$4,155,000	3%
Automatic Meters	$13,150,000	11%
Waterlines	$43,770,000	35%
Storage	$3,650,000	3%
Treatment Plants	$5,700,000	5%

For more information about the City of Ventura Capital Improvement Plan, please visit www.cityofventura.net/pw/construction/capital.

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Potential Concerns For Vulnerable Populations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Ventura Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential or commercial property plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Ventura Water and Casitas use chloramines for continuous disinfection of the drinking water and its presence requires additional precautions for some water uses. If a member of your household requires dialysis, you should contact your physician or dialysis service provider to assure proper protective equipment is used during the treatment. If you use tap water for fish or other aquatic animals that use gills for breathing, you need to test and be sure the chloramines are completely removed before use. Setting water in an open container for 24 hours prior to use will not remove all chloramines in the water. Your local pet store can provide information and products for the proper removal of chloramines.

Public Health Goals Reporting

As a water supplier, the City must evaluate its drinking water supply every three years with respect to Public Health Goals (PHG). The goals are advisory only and are not mandatory limits, but do require public notification. To fulfill this requirement, a public meeting was held in July 2013 to review the Triennial Public Health Goals Report (www.cityofventura.net/water/drinking). The next Triennial Public Health Goals Report is scheduled to be prepared and presented by July 2016.

Water Efficiency and Water Waste

Since our community relies 100% on local water sources, we live, work and play within the watersheds that supply us and our surrounding natural ecosystems with vital water resources. It is our collective responsibility to safeguard our water and use water efficiently in all ways, especially during dry conditions. Ventura Water would like to remind its customers that we are in a Stage 3 Water Shortage Event.

The following activities are prohibited and considered a violation of the City's Water Waste Ordinance.

- Allowing water to run to waste during outdoor use
- Using potable irrigation systems more than two days per week
- Allowing leaks to persist for more than 48 hours
- Using a handheld hose without an automatic shutoff nozzle
- Operating fountains unless the water is recirculating
- Washing or hosing down hardscape surfaces such as driveways and sidewalks
- Using water in manner which is wasteful

Here are some quick tips (www.cityofventura.net/water/efficiency) to help you be a good water steward.

- Use lawn and garden fertilizers and pesticides sparingly–they contain hazardous chemicals that can reach your drinking water source.
- Dispose of chemicals properly at a Household Hazardous Waste event (www.cityofventura.net/HHW).
- Take short showers and use a water-efficient showerhead. They are inexpensive, easy to install, and can save up to 750 gallons a month.
- Consider a simple laundry-to-landscape graywater system. Search for "graywater" at www.ventura.org

Water Quality Terminology

The Water Quality Summary shows constituents measured in Ventura's water and reported to the State Department of Health Services, and in some cases the USEPA. Some of the terminology used is described below:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary (health related) MCLs are set as close to the Public Health Goals (PHGs) or Maximum Contaminant Level Goals (MCLGs) as is economically and technologically feasible. Secondary (aesthetically related) MCLs are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk to one's health. MCLGs are set by the USEPA.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to one's health. The California Environmental Protection Agency sets PHGs.

Maximum Residual Disinfectant Level (MRDL): The maximum level of a disinfectant added for water treatment that may not exceed at the customers tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standard (SDWS): MCL's for contaminants that affect taste, odor, or appearance of drinking water. Secondary contaminants are not based on health effects at MCL levels.

Regulatory Action Level (RAL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

Notification Level (NL): Notification levels are health-based levels established by CDPH for chemicals in drinking water that lack MCLs.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Footnotes

1 Soil runoff.
2 Erosion of natural deposits.
3 Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
4 Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
5 Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive).
6 Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
7 Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
8 Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
(a) Average is maximum reading. Avenue Plant Surface Filtration (TT) = 95% of samples equal or below 0.1 NTU.
(b) Average is maximum reading. CMWD Direct Filtration (TT) = 100% of samples equal or below 0.2 NTU.
(c) Highest running average cannot exceed the MCL.
(d) Samples were taken at selected households on a first draw in August 2011.
(e) Monitoring completed in 2012.

Legend

ppm*	Parts per million or milligrams per liter.
ppb*	Parts per billion or micrograms per liter.
pCi/l	Picocuries per liter, a measure of radioactivity in water.
CMWD	Casitas Municipal Water District
UMHOS	Micro Ohms per Centimeter
<	Less than
TT	A required treatment technique intended to reduce the level of contaminant in drinking water
NA	Not applicable
ND	Not detectable
NS	No standard
NTU	Turbidity, a measure of the clarity or cloudiness of the water.

*If this is difficult to imagine, think about these comparisons:

ppm:
- One inch in 16 miles
- One drop in 14 gallons

ppb:
- One inch in 16,000 miles
- One drop in 14,000 gallons

Ventura's Water Quality Summary 2015

Only water quality constituents detected by laboratory testing appear in the chart.

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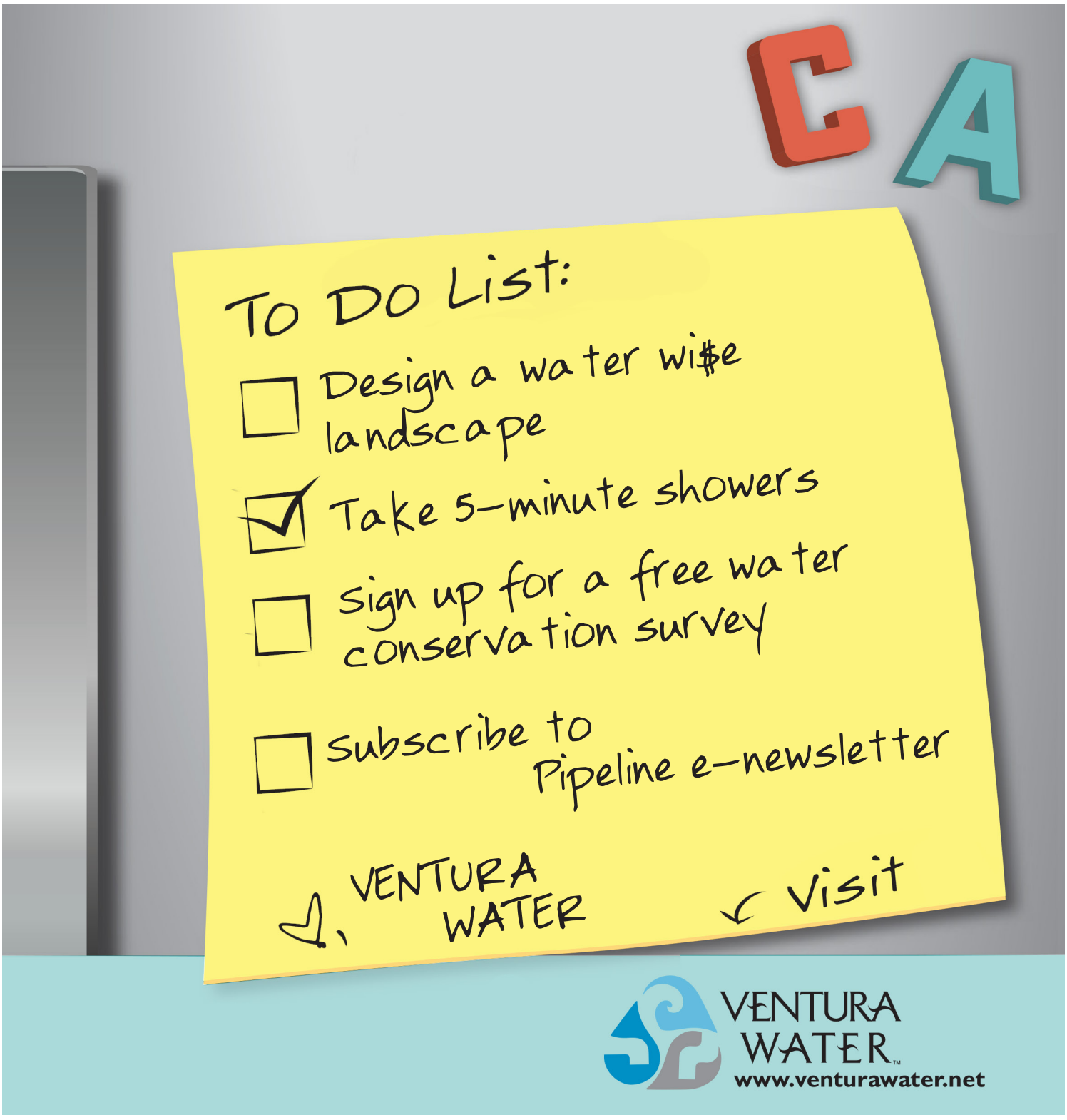
Using Data Collected in 2014 Unless Noted

PRIMARY STANDARDS (PDWS)	Units	Maximum Level MCL	State Goal PHG (MCLG)	Ventura River Average	Ventura River Range	Ground Water Average	Ground Water Range	CMWD Average	CMWD Range	Major Sources of Contamination in Drinking Water (Footnotes)
Water Clarity										
Treated Turbidity	NTU	TT	NA	0.06(a)	.02 -.06	NA	NA	0.4(b)	0.4(b)	1
Radioactive Contaminants (e)										
Gross Alpha particle activity	pCi/l	15	(0)	3.81	ND - 10	6.8	4.34 - 9.00	ND	ND	2
Uranium (c)	pCi/l	20	0.43	3.16	ND - 4.9	4.63	3.39 - 6.03	NA	NA	2
Inorganic Contaminants										
Arsenic	ppb	10	0.004	ND	ND	5	ND - 5	ND	ND	3
Fluoride	ppm	2.0	1	0.51	.46 -.62	0.54	.45 - .65	0.04	0.4	4
Selenium	ppb	50	30	8	ND - 12	24	ND - 30	1	1	5
Nitrate (as Nitrogen)	ppm	10	10	1.3	.8 - 1.7	1.7	ND - 4.4	0.22	0.22	6

Lead and Copper Samples	Units	RAL	PHG	Samples Collected	Above RAL	90th Percentile	Major Sources of Contamination in Drinking Water
Lead	ppb	15	0.2	52(d)	0	ND	7
Copper	ppb	1300	300	52(d)	2	1010	8

PRIMARY STANDARDS for Distribution System	Units	MCL	PHG (MCLG) (MRDLG)	Distribution System Average	Distribution System Range	Major Sources of Contamination in Drinking Water
Disinfection		(MRDL)	(MRDLG)	(MRDL)	(MRDL)	
Chloramine Residual	ppm	4.0	4.0	2.3	2.1 - 2.6	Drinking water disinfectant added for treatment.
Disinfection By Products						
Total Trihalomethanes	ppb	80	NA	74.8(c)	32 - 90	By-product of drinking water chlorination.
Total Haloacetic Acids	ppb	60	NA	44.8(c)	5 - 62	By-product of drinking water chlorination.
Microbiological Contaminant Samples		No more than				
Total Coliform Bacteria	NA	5%	0	0	0 - 1	Naturally present in the environment.
Fecal Coliform Bacteria	NA	0	0	0	0	Human and animal fecal waste.

	SECONDARY STANDARDS	Units	Maximum Contaminant Level	Ventura River Average	Ventura River Range	Ground Water Average	Ground Water Range	CMWD Average	CMWD Range
Aesthetic Standards	Color	Color	15	ND	ND	ND	ND-6	ND	ND
	Odor	Threshold	3	ND	ND	ND	ND	ND	ND
	Chloride	ppm	500	63	57 - 90	71	57 - 92	19	19
	Manganese	ppm	50	ND	ND	ND	ND - 20		
	Iron	ppb	300	ND	ND	ND	ND	ND	ND
	Total Dissolved Solids	ppm	1000	752	703 -799	1275	1065 - 1497	380	380
	Specific Conductance	umhos	1600	1058	1036 - 1092	1648	1145 - 1930	563	563
	Sulfate	ppm	500	249	242 - 258	557	445 - 669	141	141
Additional Constituents	pH	pH units	6.5 - 8.5	7.7	7.5 - 7.8	7.3	7.1 - 7.5	7.5	7.5
	Hardness	ppm	NS	441	415 - 459	645	563 - 733	273	273
	Calcium	ppm	NS	121	112 - 127	169	100 - 192	49	49
	Magnesium	ppm	NS	34	29 - 35	52	41 - 63	22	22
	Corrosivity	ppb	Non Corrosive(+)	0.61	.45 - .76	0.41	.12 - .57	0.2	0.2
	Sodium	ppm	NS	50	48 - 54	129	95 - 168	26	26
	Phosphate	ppm	NS	ND	ND - .27	ND	ND	ND	ND
	Potassium	ppm	NS	2.3	2.1 - 2.3	4.74	4.0 - 5.7	3	3
	Total Alkalinity	ppm	NS	240	216 - 260	266	238 - 302	120	120



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